# INSPECTION, MAINTENANCE & RECHARGE SERVICE MANUAL

NO. 05607

for

Model 240 9 Liter Water Jet Nozzle
Model 254 6 Liter AFFF Foam with Spray Nozzle
Model 256 6 Liter AFFF Foam with Spray Nozzle
Model 259 9 Liter AFFF Foam with Spray Nozzle
Model 246 9 Liter Water Spray Nozzle
Model 250 2½ Gallon AFFF Foam with Aspirated Nozzle
Model 252 2½ Gallon FFFP (Alcohol Resistant) Foam with Aspirated Nozzle

* * * RECHARGE FIRE EXTINGUISHERS IMMEDIATELY AFTER ANY USE * * *

**WARNING**

DO NOT USE THESE EXTINGUISHERS ON FIRES INVOLVING ENERGIZED ELECTRICAL EQUIPMENT (CLASS C HAZARDS), FLAMMABLE METALS (CLASS D HAZARDS) OR ANY FLAMMABLE THAT WILL REACT WITH WATER.

**PROTECT FROM FREEZING !**

All fire extinguishers should be installed, inspected and maintained in accordance with the National Fire Protection Association standard titled "Portable Fire Extinguishers", NFPA-10 and the requirements of local authorities having jurisdiction.

When maintenance is indicated it should be performed by trained persons having proper equipment. Fire extinguishers are pressure vessels and must be treated with respect and handled with care. They are mechanical devices and require periodic maintenance to be sure that they are ready to operate properly and safely. Amerex Fire International Ltd strongly recommends that the maintenance of portable fire extinguishers is done by a trained professional - your local authorized Amerex Distributor.

Amerex Corporation makes original factory parts available to insure proper maintenance - use of substitute parts releases Amerex of its warranty obligations. Amerex parts have machined surfaces and threads that are manufactured to exacting tolerances. O-rings, hoses, nozzles, and all metal parts meet precise specifications and are subjected to multiple in-house inspections and tests for acceptability. There are substitute parts available that are incorrectly labeled as UL component parts, some are advertised as Amerex type. None of these meet UL requirements and all of them void the Amerex extinguisher warranty and UL listing. DO NOT SUBSTITUTE.

| REFERENCES IN THIS MANUAL: | AVAILABLE FROM: |
|---|---|
| **NFPA-10** Portable Fire Extinguishers | National Fire Protection Association<br>1 Batterymarch Park, P. O, Box 9101<br>Quincy, MA 02269-9101 |
| ***CGA C-1*** Methods for Hydrostatic Testing of Compressed Gas Cylinders<br>***CGA C-6*** Standard for Visual Inspection of Compressed Gas Cylinders | Compressed Gas Association, Inc.<br>4221 Walney Road, 5th Floor<br>Chantilly, VA 20151-2923 |

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AMEREX FIRE INTERNATIONAL LTD DOES NOT SERVICE, MAINTAIN OR RECHARGE FIRE EXTINGUISHERS. THIS MANUAL IS PUBLISHED AS A GUIDE TO ASSIST SERVICE PERSONNEL IN THE INSPECTION, MAINTENANCE AND RECHARGE OF AMEREX FIRE EXTINGUISHERS ONLY. NO INSTRUCTION MANUAL CAN ANTICIPATE ALL POSSIBLE MALFUNCTIONS THAT MAY BE ENCOUNTERED IN THE SERVICE OF FIRE EXTINGUISHERS. AMEREX ASSUMES NO LIABILITY FOR SERVICE, MAINTENANCE OR RECHARGE OF FIRE EXTINGUISHERS BY PUBLISHING THIS MANUAL.

## INSPECTION

This extinguisher should be INSPECTED at regular intervals (monthly or more often if circumstances dictate) to insure that it is ready for use. INSPECTION (NFPA 10 6.2) is a "quick check" that an extinguisher is available and will operate. It is intended to give reasonable assurance that the extinguisher is fully charged and operable. This is done by seeing that it is in its designated place, that it has not been actuated or tampered with, and that there is no obvious physical damage or condition to prevent operation.

## MAINTENANCE

At lease once a year (or more frequently if indicated by an inspection) MAINTENANCE (NFPA 10 6.3) should be performed. MAINTENANCE is a "thorough check" of the extinguisher. It is intended to give maximum assurance that an extinguisher will operate effectively and safely. It includes a thorough examination and any necessary repair or replacement. It will normally reveal the need for hydrostatic testing.

## MAINTENANCE/SERVICE PROCEDURE

1. Clean extinguisher to remove dirt, grease or foreign material. Check to make sure that the instruction nameplate is securely fastened and legible. Inspect the cylinder for corrosion, abrasion, dents or weld damage. If any of these conditions are found and you doubt the integrity of the cylinder, hydrostatically test, using the proof pressure method and a suitable cage, in accordance with CGA C-6 and NFPA 10. **NOTE: When cleaning avoid the use of solvents around the pressure gauge they could seriously damage the plastic gauge face.**
2. Inspect the extinguisher for damaged, missing or substitute parts. Only factory replacement parts are approved for use on Amerex fire extinguishers.
3. Weigh extinguisher and compare with weight printed on the maintenance section of the nameplate. Recharge if weight is not within the indicated allowable tolerances.
4. Check the date of manufacture on the extinguisher hanger loop. Cylinder must be hydrostatically tested every 5 years to the test pressure indicated on the nameplate. Not required for EN3.
5. Visually inspect the pressure gauge:
   a. if bent, damaged or improper gauge, depressurize and replace
   b. if pressure is low, check for leaks
   c. if over-pressurized (overcharged) reduce to 100 psi (690 kPa) through the pressure valve and check for leaks
6. Inspect the footstand (base). If cracked or broken replace with P/N 02520.
7. Inspect ring pin for freedom of movement. Replace if bent or if removal appears difficult.
8. Inspect discharge lever for dirt or corrosion which might impair freedom of movement. Inspect carrying handle for proper installation. If lever, handle or rivets are damaged or distorted replace with proper Amerex parts.
9. Remove hose & nozzle assembly. Inspect hose gasket (o-ring), hose and nozzle assembly for damage, replace as necessary. Blow air through hose & nozzle to insure passage is clear of foreign material.
10. Examine the air pressurizing valve (Schrader) for damage. The cap should be in place to prevent leaking. Inspect the valve assembly for corrosion or damage to hose thread connections. Replace valve assembly or component parts as necessary following the proper depressurization and recharge procedures.
11. Install hose and nozzle assembly.
12. Install new tamper seal if broken and record service data on the extinguisher inspection tag.
13. Rehang the extinguisher on the wall hanger bracket making sure that it fits the hanger bracket properly - replace the bracket if necessary. **Note: When a Loaded Stream/Anti-freeze charge is used to freeze protect this extinguisher, a complete discharge and maintenance is required ANNUALLY. Use only the Amerex Model 506 charge and follow the instructions printed on the carton.**

## RECHARGE

RECHARGING (NFPA 10 6.4) is the replacement of the extinguishing agent and also includes the expellant for this type of extinguisher.

WARNING:
a. Before attempting to recharge be sure this extinguisher is completely depressurized.
b. Use a REGULATED pressurizing source (either air or nitrogen). Set the regulator no more than 25 psi (175 kPa) higher than the gauge operating pressure.

c. Check and calibrate regulator gauge at frequent intervals. The regulator gauge should be used to determine when the intended charging pressure has been reached. Do not use the extinguisher gauge for this purpose.

d. Never leave an extinguisher connected to a regulator of a high-pressure source for an extended period of time. A defective regulator could cause the cylinder to rupture due to excessive pressure.

## RECHARGING PROCEDURE

1. Complete the "Maintenance/Service Procedure" items 1 through 10.
2. Discharge all remaining pressure and water (or anti-freeze solution) making sure there is no remaining air pressure.
3. Remove the valve assembly and disassemble by removing downtube assembly (use a wrench on the brass retainer, not the plastic tube), spring and valve stem assembly. Remove collar o-ring from the valve and plastic fill tube from the cylinder.
4. Thoroughly rinse all parts with clean water and wipe dry with a soft cloth. Blow the valve out with air or nitrogen. Inspect the collar o-ring, valve stem and spring - replace parts if worn or damaged. Lubricate the collar o-ring and small o-ring on the valve stem with Visilox V-711 (do not lubricate the valve stem seal). Inspect the downtube. If it is cracked, deformed or does not have a threaded brass spring retainer replace with P/N 00404. Inspect downtube o-ring, replace if necessary.
5. Rinse the cylinder with clean water and inspect the interior following CGA Visual Inspection Standard C-6.
6. Firmly replace the plastic fill tube and fill cylinder with clean water until it overflows (2½ U.S. gallons [9½ liters], 9 or 6 liters EN3 units).
7. Install a "Verification of Service" collar around the neck of the cylinder. Install valve assembly to the cylinder and properly align. **CAUTION: Hand tighten the valve collar nut 100-125 in. lbs. Max (1.15 - 1.44 KG/m). Over-tightening with a wrench will damage the valve.**
8. Remove cap from the air pressurizing valve on the side of the valve body and pressurize with 100 psi using air or nitrogen. NOTE: A 02141 fill adapter may also be used by installing to the female valve outlet (where the hose assembly attaches). The pressure regulator should be set to no more than 125 psi (862 kPa). Replace pressure valve cap. The cap must be in place to insure that valve will not leak.
9. Check the collar, gauge, air pressurizing valve, cylinder welds and valve orifice for leaks using leak detection fluid or a solution of soapy water. Remove leak detection fluid from the valve assembly by blowing out with air and wipe exterior of the extinguisher to dry.
10. Install hose and nozzle assembly.
11. Install ring pin with ring facing front of extinguisher. Install new tamper seal. Record recharge date and attach new recharge tag.
12. Weigh assembled extinguisher and confirm that the total weight is within the allowable tolerances indicated in the Maintenance section on the extinguisher nameplate.

## TROUBLESHOOTING GUIDE

**WARNING:** Determine the source of a leak before the extinguisher is depressurized. **THE EXTINGUISHER MUST BE COMPLETELY DEPRESSURIZED BEFORE ANY ATTEMPT IS MADE TO DEVALVE IT AND CORRECT ANY LEAKAGE PROBLEM.** To depressurize hold the extinguisher in an inverted position and slowly squeeze the dischage handle. Some water remaining in the downtube will be discharged, so care should be taken in the area used for depressurization. Thoroughly clean all valve parts after depressurization and valve removal.

| | PROBLEM | CORRECTIVE ACTION |
|---|---|---|
| 1 | Leak at collar o-ring | Remove valve assembly, clean collar (knurled) nut thoroughly and install new o-ring. Lubricate o-ring with Visilox V-711. |
| 2 | Leak through valve | Install new valve stem assembly. Check valve seat for scratches or foreign matter |
| 3 | Leak around gauge threads | Remove gauge* and reinstall using Teflon tape on the gauge threads. |
| 4 | Defective gauge | Remove defective gauge* and install a new P/N 06479 gauge using Teflon tape on the gauge threads. |
| 5 | Leak in cylinder | Contact Amerex if under warranty, otherwise mark "REJECTED" and return to owner. |
| 6 | Broken footstand | Install new P/N 02520 footstand using Dow corning RTV-732 Silicone Rubber adhesive, Amerex P/N 04488. |
| | | |
| * | Pressure gauge threads are coated with a special epoxy at the factory. For easy removal soak the valve assembly (minus the downtube assembly) in hot water (180° F/82°C) for two to four minutes. Remove gauge with a 7/16" open end wrench. | |